

Author Index of Volume 150

Baluta, Gh., L9
 Bamberger, M., 133
 Barb, A., L9
 Bhattacharya, D. K., 51
 Biner, S. B., 213
 Bozack, M. J., 255
 Brezina, J., L5
 Buchar, J., L5

Cabanillas, E. D., 113
 Cantalejos, N. A., 113
 Chang, S. C., L11
 Chawla, K. K., 161
 Chinadurai, R., 43
 Chiu, C.-C., 139
 Cui, P., 281

Davis, P. R., 255
 Draper, S. L., 7
 Dudgeon, H. D., 195

Ferber, M. K., 161
 Fernando, J., 161
 Fleischmann, P. G., L1
 Froes, F. H., 117

Gaydosh, D. J., 7
 Ghonem, H., 151
 Giurgiu, C., L9
 Goldberg, A., 187
 Gonser, U., 271

Haessner, F., 101
 Hamilton, D. L., 1
 Horng, C. F., 289
 Hyun, J. S., 249

Jacobson, D. L., 67
 Jayakumar, T., 51
 Jose-Yacaman, M., 87

Kagawa, Y., L1
 Kao, P. W., 171

Ke, T. S., 281
 Khosrovabadi, P. B., 263
 Kim, J. S., 249
 Kishi, T., L1
 Kodaira, T., 231
 Kolster, B. H., 263
 Krejci, J., L5
 Kupperman, D. S., 59

Lara, A., 87
 Lavernia, E. J., 21
 Lazar, D. P., L9
 Lewandowski, J. J., 179
 Li, S., 209
 Lin, S. J., 289
 Linderhovius, J. H., 263
 Liu, C. D., 171
 Liu, K. S., 289
 Luo, A., 67

Mageed, A. M. A., 43
 Maier, C., 271
 Majumdar, S., 59
 Malakondaiah, G., 221
 Manoharan, M., 179
 Mao, X., 231
 Markworth, A. J., 37
 Martin, J. W., 195
 Matthys, E. F., 237
 Mercader, R. C., 113
 Mishra, N. S., 75
 Mohamed, F. A., 21
 Morariu, M., L9
 Mueller, B. A., 123

Nathau, M. U., 7
 Nicolaus, M. M., 101
 Noebe, R. D., 7

Pandey, R. K., 43
 Park, K. T., 21
 Pavel, E., L9

Perepezko, J. H., 123
 Pilling, J., 1
 Prabhakar, O., 51
 Prasad, N. E., 221
 Pyun, S. I., 249

Raj, B., 51
 Ranganathan, S., 75
 Rao, P. R., 221
 Reyes-Gasga, J., 87
 Ridley, N., 1
 Riveros, H., 87
 Rodriguez, P., 51
 Ruano, O. A., 187

Saigal, A., 59
 Salehi, M. T., 1
 Schaaf, P., 271
 Schneeweiss, O., L5
 Shafirstien, G., 133
 Sherby, O. D., 187
 Sheu, T. S., L11
 Shin, K. S., 67
 Sinning, H.-R., 101
 Spitzig, W. A., 213
 Sun, L., 209
 Sundaresan, R., 117
 Suryanarayana, C., 117

Takahashi, H., 231
 Tanner, L. E., 123
 Terminiello, L., 113

Vaidya, R. U., 161
 Versaci, R., 113

Wang, Z., 209
 Wilde, P. D., 237

Zang, Q., 209
 Zhang, N., 263
 Zheng, D., 151

Subject Index of Volume 150

Acoustic emission
 influence of coherent γ' on acoustic emission generated during tensile deformation in Nimonic alloy PE16, 51

Alloys
 anelastic relaxation peak associated with the presence of incoherent θ phase in Al-4wt.%Cu alloy, 281
 characterization of the decagonal quasi-crystalline phase of the $\text{Al}_{62}\text{Co}_{20}\text{Cu}_{15}\text{Si}_3$ alloy by TEM, 87
 depth of intergranular oxygen diffusion during environment-dependent fatigue crack growth in alloy 718, 151
 effects of thoria particles on the high temperature tensile properties of a W-26wt.%Re alloy, 67
 electron microscopy and diffraction of ordering in a Ni-25wt.%Mo alloy, 75
 influence of coherent γ' on acoustic emission generated during tensile deformation in Nimonic alloy PE16, 51
 near-threshold fatigue crack growth at room and elevated temperature in the Al-Li alloy 8090, 195
 role of passivating oxide film in the corrosive wear of Al-7%Si alloy, 249
 room temperature flow and fracture of Fe-40at.%Al alloys, 7
 strength differential in Al-Li alloy 8090, 221
 the production of high purity metal alloys by surface segregation, 255
 TiNi shape memory alloys prepared by normal sintering, 263
 TiAl formation by mechanical alloying, 117

Aluminium
 anelastic relaxation peak associated with the presence of incoherent θ phase in Al-4wt.%Cu alloy, 281
 characterization of the decagonal quasi-crystalline phase of $\text{Al}_{62}\text{Co}_{20}\text{Cu}_{15}\text{Si}_3$ alloy by TEM, 87
 creep behavior of discontinuous SiC-Al composites, 21
 deformation and failure process of and aluminium matrix composite reinforced with short carbon fibres, L1
 formation of MgAl_2O_4 in the Al_2O_3 -(Al-4wt.%Mg) composites, 289
 isostatic diffusion bonding of superplastic Ti-6Al-4V, 1
 laser-beam-material coupling and its influence on the laser-induced formation of crystalline α - Al_2O_3 on an amorphous Al_2O_3 substrate, 133
 microstructure development in undercooled Al-Be powders, 123
 near-threshold fatigue crack growth at room and elevated temperature in the Al-Li alloy 8090, 195
 role of passivating oxide film in the corrosive wear of Al-7%Si alloy, 249
 room temperature flow and fracture of Fe-40at.%Al alloys, 7
 strength differential in Al-Li alloy 8090, 221
 the determination of Al-Li crystal orientation by indentation, L11
 TiAl formation by mechanical alloying, 117

Aluminum
 effect of reinforcement size and matrix microstructure on the fracture properties of an aluminum metal matrix composite, 179

Anelastic relaxation peaks
 anelastic relaxation peak associated with the presence of incoherent θ phase in Al-4wt.%Cu alloy, 281

Austenite
 Mössbauer studies of strain-induced transformation of retained austenite in dual-phase steels, 113

Bainite
 tensile properties of a 0.34C-3Ni-Cr-Mo-V steel with mixed lower-bainite-martensite structures, 171

Beryllium
 microstructure development in undercooled Al-Be powders, 123

Carbon
 creep behavior of discontinuous SiC-Al composites, 21
 deformation and failure process of and aluminium matrix composite reinforced with short carbon fibres, L1
 the invar property of the metallic inclusions in synthetic diamond crystals grown in the Fe-Ni-C system, L9

Ceramics
 residual stresses in ceramic coatings as determined from the curvature of a coated strip, 139

Charge impact
 phase analysis of the surface of the perforation resulting from copper shaped charge impact on a steel target, L5

Chromium
 supersmall punch test to estimate fracture toughness J_{lc} and its application to radiation embrittlement of 2.25Cr-1Mo steel, 231
 tensile properties of a 0.34C-3Ni-Cr-Mo-V steel with mixed lower-bainite-martensite structures, 171

Coated strips
 residual stresses in ceramic coatings as determined from the curvature of a coated strip, 139

Cobalt
 characterization of the decagonal quasi-crystalline phase of the $\text{Al}_{62}\text{Co}_{20}\text{Cu}_{15}\text{Si}_3$ alloy by TEM, 87
 crystallization behaviour and generation of a nanocrystalline state from amorphous $\text{Co}_{33}\text{Zr}_{67}$, 101

Composites
 creep behavior of discontinuous SiC-Al composites, 21
 deformation and failure process of and aluminium matrix composite reinforced with short carbon fibres, L1
 effect of fiber coating on the mechanical properties of a Nextel-480-fiber-reinforced glass matrix composite, 161
 effect of reinforcement size and matrix microstructure on the fracture properties of an aluminum metal matrix composite, 179
 formation of MgAl_2O_4 in the Al_2O_3 -(Al-4wt.%Mg) composites, 289
 residual strains in titanium matrix high-temperature composites, 59

Copper
 anelastic relaxation peak associated with the presence of incoherent θ phase in Al-4wt.%Cu alloy, 281
 characterization of the decagonal quasi-crystalline phase of the $\text{Al}_{62}\text{Co}_{20}\text{Cu}_{15}\text{Si}_3$ alloy by TEM, 87
 creep characteristics of wire drawn Cu-20%Nb, 213
 phase analysis of the surface of the perforation resulting from copper shaped charge impact on a steel target, L5

Corrosive wear
role of passivating oxide film in the corrosive wear of Al-7%Si alloy, 249

Crack
a geometric model for fatigue crack closure induced by fracture surface roughness under mode I displacements, 209
depth of intergranular oxygen diffusion during environment-dependent fatigue crack growth in alloy 718, 151
near-threshold fatigue crack growth at room and elevated temperature in the Al-Li alloy 8090, 195

Crack closure
a geometric model for fatigue crack closure induced by fracture surface roughness under mode I displacements, 209
effect of measurement location and fatigue loading parameters on crack closure behaviour, 43

Crack growth
depth of intergranular oxygen diffusion during environment-dependent fatigue crack growth in alloy 718, 151
near-threshold fatigue crack growth at room and elevated temperature in the Al-Li alloy 8090, 195

Creep
creep behavior of discontinuous SiC-Al composites, 21
creep characteristics of wire drawn Cu-20%Nb, 213

Crystallisation
crystallization behaviour and generation of a nanocrystalline state from amorphous $\text{Co}_{33}\text{Zr}_{67}$, 101

Crystals
the invar property of the metallic inclusions in synthetic diamond crystals grown in the Fe-Ni-C system, L9
the determination of Al-Li crystal orientation by indentation, L11

Deformation
deformation and failure process of an aluminium matrix composite reinforced with short carbon fibres, L1

Diamond
the invar property of the metallic inclusions in synthetic diamond crystals grown in the Fe-Ni-C system, L9

Diffraction
electron microscopy and diffraction of ordering in a Ni-25wt.%Mo alloy, 75

Diffusion
isostatic diffusion bonding of superplastic Ti-6Al-4V, 1

Diffusion bonding
isostatic diffusion bonding of superplastic Ti-6Al-4V, 1

Electron microscopy
electron microscopy and diffraction of ordering in a Ni-25wt.%Mo alloy, 75

Erosion
a stochastic model for the simultaneous occurrence of oxidation and erosion, 37

Failure processes
deformation and failure process of an aluminium matrix composite reinforced with short carbon fibres, L1

Fatigue
a geometric model for fatigue crack closure induced by fracture surface roughness under mode I displacements, 209
depth of intergranular oxygen diffusion during environment-dependent fatigue crack growth in alloy 718, 151
near-threshold fatigue crack growth at room and elevated temperature in the Al-Li alloy 8090, 195
effect of measurement location and fatigue loading parameters on crack closure behaviour, 43

Fibre coatings
effect of fiber coating on the mechanical properties of a Nextel-480-fiber-reinforced glass matrix composite, 161

Fibres
deformation and failure process of an aluminium matrix composite reinforced with short carbon fibres, L1
effect of fiber coating on the mechanical properties of a Nextel-480-fiber-reinforced glass matrix composite, 161

Fracture
a geometric model for fatigue crack closure induced by fracture surface roughness under mode I displacements, 209
effect of reinforcement size and matrix microstructure on the fracture properties on an aluminum metal matrix composites, 279
room temperature flow and fracture of Fe-40at.%Al alloys, 7
supersmall punch test to estimate fracture toughness J_{lc} and its application to radiation embrittlement of 2.25Cr-1Mo steel, 231

Fracture toughness
supersmall punch test to estimate fracture toughness J_{lc} and its application to radiation embrittlement of 2.25Cr-1Mo steel, 231

Free surfaces
experimental investigation of the planar flow casting process: development and free surface characteristics of the solidification puddle, 237

Glass
effect of fiber coating on the mechanical properties of a Nextel-480-fiber-reinforced glass matrix composite, 161

Iron
room temperature flow and fracture of Fe-40at.%Al alloys, 7
the invar property of the metallic inclusions in synthetic diamond crystals grown in the Fe-Ni-C system, L9

Laser treatment
calculation of the temperature profile for laser treatment of metallic samples, 271

Laser beams
laser-beam-material coupling and its influence on the laser-induced formation of crystalline $\alpha\text{-Al}_2\text{O}_3$ on an amorphous Al_2O_3 substrate, 133

Lithium
near-threshold fatigue crack growth at room and elevated temperature in the Al-Li alloy 8090, 195
strength differential in Al-Li alloy 8090, 221
the determination of Al-Li crystal orientation by indentation, L11

Magnesium
formation of MgAl_2O_4 in the Al_2O_3 -(Al-4wt.%Mg) composites, 289

Manganese
development of ultrafine microstructures and superplasticity in Hadfield manganese steels, 187

Material coupling
laser-beam-material coupling and its influence on the laser-induced formation of crystalline $\alpha\text{-Al}_2\text{O}_3$ on an amorphous Al_2O_3 substrate, 133

Mechanical properties
effect of fiber coating on the mechanical properties of a Nextel-480-fiber-reinforced glass matrix composite, 161

Metal matrix composites
 effect of reinforcement size and matrix microstructure on the fracture properties of an aluminum metal matrix composite, 179

Metallic inclusions
 the invar property of the metallic inclusions in synthetic diamond crystals grown in the Fe-Ni-C system, L9

Metallics
 calculation of the temperature profile for laser treatment of metallic samples, 271

Metals
 effect of reinforcement size and matrix microstructure on the fracture properties of an aluminum metal matrix composite, 179

the production of high purity metal alloys by surface segregation, 255

Microstructure development
 microstructure development in undercooled Al-Be powders, 123

Molybdenum
 electron microscopy and diffraction of ordering in a Ni-25wt.%Mo alloy, 75
 supersmall punch test to estimate fracture toughness J_{lc} and its application to radiation embrittlement of 2.25Cr-1Mo steel, 231
 tensile properties of a 0.34C-3Ni-Cr-Mo-V steel with mixed lower-bainite-martensite structures, 171

Mössbauer studies
 Mössbauer studies of strain-induced transformation of retained austenite in dual-phase steels, 113

Nanocrystals
 crystallisation behaviour and generation of a nanocrystalline state from amorphous $\text{Co}_{33}\text{Zr}_{67}$, 101

Nickel
 electron microscopy and diffraction of ordering in a Ni-25wt.%Mo alloy, 75
 tensile properties of a 0.34C-3Ni-Cr-Mo-V steel with mixed lower-bainite-martensite structures, 171
 the invar property of the metallic inclusions in synthetic diamond crystals grown in the Fe-Ni-C system, L9
 TiNi shape memory alloys prepared by normal sintering, 263

Niobium
 creep characteristics of wire drawn Cu-20%Nb, 213

Oxidation
 a stochastic model for the simultaneous occurrence of oxidation and erosion, 37

Oxide films
 role of passivating oxide film in the corrosive wear of Al-7%Si alloy, 249

Oxygen
 depth of intergranular oxygen diffusion during environment-dependent fatigue crack growth in alloy 718, 151
 formation of MgAl_2O_4 in the Al_2O_3 -(Al-4wt.%Mg) composites, 289
 laser-beam-material coupling and its influence on the laser-induced formation of crystalline $\alpha\text{-Al}_2\text{O}_3$ on an amorphous Al_2O_3 substrate, 133

Phase analysis
 phase analysis of the surface of the perforation resulting from copper shaped change impact on a steel target, L5

Planar flow casting
 experimental investigation of the planar flow casting process: development and free surface characteristics of the solidification puddle, 237

Punch test
 supersmall punch test to estimate fracture toughness J_{lc} and its application to radiation embrittlement of 2.25Cr-1Mo steel, 231

Radiation
 supersmall punch test to estimate fracture toughness J_{lc} and its application to radiation embrittlement of 2.25Cr-1Mo steel, 231

Residual strain
 residual strains in titanium matrix high-temperature composites, 59

Residual stresses
 residual stresses in ceramic coatings as determined from the curvature of a coated strip, 139

Rhenium
 effects of thorium particles on the high temperature tensile properties of a W-26wt.%Re alloy, 67

Shape memory alloys
 TiNi shape memory alloys prepared by normal sintering, 263

Silicon
 characterization of the decagonal quasi-crystalline phase of the $\text{Al}_{62}\text{O}_{20}\text{Cu}_{15}\text{Si}_3$ alloy by TEM, 87
 creep behavior of discontinuous SiC-Al composites, 21
 role of passivating oxide film in the corrosive wear of Al-7%Si alloy, 249

Sintering
 TiNi shape memory alloys prepared by normal sintering, 263

Solidification
 experimental investigation of the planar flow casting process: development and free surface characteristics of the solidification puddle, 237

Steels
 development of ultrafine microstructures and superplasticity in Hadfield manganese steels, 187
 Mössbauer studies of strain-induced transformation of retained austenite in dual-phase steels, 113
 phase analysis of the surface of the perforation resulting from copper shaped change impact on a steel target, L5
 tensile properties of a 0.34C-3Ni-Cr-Mo-V steel with mixed lower-bainite-martensite structures, 171

Strain-induced transformation
 Mössbauer studies of strain-induced transformation of retained austenite in dual-phase steels, 113

Superplasticity
 development of ultrafine microstructures and superplasticity in Hadfield manganese steels, 187

Superplastics
 isostatic diffusion bonding of superplastic Ti-6Al-4V, 1

Surface perforation
 phase analysis of the surface of the perforation resulting from copper shaped change impact on a steel target, L5

Surface roughness
 a geometric model for fatigue crack closure induced by fracture surface roughness under mode I displacements, 209

Surface segregation
 the production of high purity metal alloys by surface segregation, 255

Temperature profiles
calculation of the temperature profile for laser treatment of
metallic samples, 271

Tensile deformation
influence of coherent γ on acoustic emission generated
during tensile deformation in Nimonic alloy PE16, 51

Tensile properties
effects of thoria particles on the high temperature tensile
properties of a W-26wt.%Re alloy, 67

Thoria particles
effects of thoria particles on the high temperature tensile
properties of a W-26wt.%Re alloy, 67

Titanium
isostatic diffusion bonding of superplastic Ti-6Al-4V, 1
TiNi shape memory alloys prepared by normal sintering, 263
residual strains in titanium matrix high-temperature com-
posites, 59
TiAl formation by mechanical alloying, 117

Transmission electron microscopy
characterization of the decagonal quasi-crystalline phase of
the $\text{Al}_{62}\text{Co}_{20}\text{Cu}_{15}\text{Si}_3$ alloy by TEM, 87

Tungsten
effects of thoria particles on the high temperature tensile
properties of a W-26wt.%Re alloy, 67

Vanadium
isostatic diffusion bonding of superplastic Ti-6Al-4V, 1
tensile properties of a 0.34C-3Ni-Cr-Mo-V steel with mixed
lower-bainite-martensite structures, 171

Zirconium
crystallization behaviour and generation of a nanocrystalline
state from amorphous $\text{Co}_{33}\text{Zr}_{67}$, 101

